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The Effectiveness of Block Schedule in Middle School

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Block scheduling at the high school level has become very popular in the state of Georgia, but the middle schools are on a traditional schedule. However, many states are moving from a traditional schedule to a block schedule in middle school as well. This study will look at the advantages and disadvantages of block scheduling to determine the effectiveness of block scheduling at the middle-grades level. "Block scheduling at the high school level has been well documented. Less well publicized have been efforts at the middle level to use blocks of time to improve teaching and learning" (Peterson, Schmidt, Flottmeyer, & Weincke, 2000, p. 3).

Since the author will be teaching at Veterans Memorial Middle School under the block schedule, the author feels it is extremely important to understand how block scheduling works. It seems that block scheduling offers some benefits. For example, it provides the time to emphasize understanding and less time is wasted transitioning from one class to another.

Veterans Memorial Middle School is a new school that opened its doors in fall of 2007. Administrators of the school have decided to use an alternating day 4x4 block schedule instead of a traditional schedule. The author has decided to use data collected this school year from Veterans Memorial as a baseline, since there is no data from previous years. .

Why should a school focus on schedules? Canady and Rettig's study (as cited in Milwaukee Public Schools, 1995) note three reasons in their research:

> (1) A schedule is an important resource—permitting the effective utilization of people, space, time, and resources in the school. (2) A schedule can either help solve problems related to delivery of instruction; or can be a major source of problems. (3) A schedule can facilitate the institutionalization of desired programs and instructional practices.(p. 2)

Review of the literature indicates that block scheduling at the middle grades level will increase inquiry, hand-on instruction, and time spent on in-depth study and understandings in the classroom. One middle school in Edina, Minnesota found a need for change. "It became increasingly clear to parents and teachers in our community, however, that society and our middle level learners had changed and we needed to expand opportunities to learn" (Peterson et al., 2000, p. 4). As a result, the school changed from a traditional 6-period day, to design a new instructional model of 8 different classes per day in a 42-minute time structure. This was done in order to offer additional courses to meet the needs of the overall community.

"We learned quickly, however, that the fast pace we created was not appropriate developmentally for middle school students" (Peterson et al., 2000, p. 4). The new schedule was assessed and problems with the 8-class, 42-minute period time a day became glaringly evident to the teachers, parents, and students. Peterson et al. (2000) noted four main problems associated with the new schedule:

> (1) Due to the addition of the new academic courses, many of these courses produced homework so the expectation for completing daily work outside of class increased. (2)

> Students and parents became more stressed because of the increased expectations. (3) Students were lacking continuity, meaning, and focus throughout the school day. (4) Students and teachers weren't given enough time to form meaningful relationships. (p. 4) . Also, teachers felt that, "Indeed, the short time periods lead to an instructional setting in which serious inquiry and in-depth analysis were absent and teachers found comfort in a continuance of a lecture mode of instruction" (Peterson et al., 2000. p. 4).

The school decided that the current tradition schedule wasn't working but they also realized "that the added option we gave to students could not be abandoned, as they became popular with the students" (Peterson, et al., 2000, p. 5). After much debate the seventh-grade teachers decided that a block schedule could be a solution to the current schedule. They knew that the new schedule would need to be flexible so they decided to use an alternating day format for classes. This meant the new block schedule (4X4) would be four classes a day alternating classes every other day for a total of eight different classes. The students could keep the new courses they had grown accustomed to taking, but the class periods would be approximately 90 minutes in length. The 90-minute period alleviated the problems derived from the traditional eight classes per day.

The commitment to the 4X4 alternating block schedule provided new challenges for the faculty and staff. Teachers needed to change their lesson plans to meet the needs of a 90-minute class period and keep the focus of the students. The teachers developed an effective three-part lesson plan. The first 20-40 minutes of class consisted of direct instruction or "explanation". The teacher made a transition to the second phase "application" which consisted of hands-on activities. Finally, the "synthesis" phase of the lesson began with students and teachers reconvening and discussing the learning that had taken place in the lesson. (Peterson et al., 2000)

The new block schedule provided ample team and individual planning time, and core teachers had common planning time as well. According to the special education teachers, the new schedule was also more conducive to inclusion for special education students to prevent them from being pulled out of class. The extended class time allowed teachers to become facilitators and gave them the time to bring students together at the end and have them reflect learning of the day. This is a feature that is often left out of lessons due to the lack of class time. (Peterson et al., 2000)

> Michael D. Rettig (2004) has visited numerous middle schools and asked, What percentage of the school day should middle-grade students spend in the core subject?...The most common numbers I hear from the middle schools I visit are 75 and 80 percent. But while sixth graders in a typical day of seven 47-minute periods devote five periods to reading, English, mathematics, science, and social studies, or 71 percent of their time, that drops to 57 percent when advisories, lunch, and class changes are included. Students in grade 7 and 8 spend...57 percent of their school time, but only 46 percent if advisories, lunch, and class changes are added. Three blocks of approximately 90 minutes each are provided for the core subjects (75 percent) and one block is devoted to other subjects ...(25 percent) (p. 1)

The 4x4 block schedule used at Veterans Memorial meets Rettig's goal of 75-80 percent of time being spent on core subjects. Canady and Rettig go on to explain how the 4x4 or four-block schedule is designed. One schedule that is being used increasing across America greatly reduces fragmented instruction. In this four-block schedule, students spend one block in language arts, a second block in mathematics, and a third block in either social studies or science. The block of social studies/science is rotated every other day, every other unit, or by semester. Students spend the fourth block in two exploratory courses, which meet for ninety minutes every other day or the 90-minute block is split into two 45-minute classes. (Canady & Rettig, 1995)

Review of the literature shows the need for varied teaching styles and strategies in order to be effective in teaching and learning in the modern day.

> The National Training Lab reports that we remember only one-fifth of what we see and hear, 80 percent of what we experience directly, and 90 percent of what we teach to others. Discussions, direct experiences, and student sharing are all highly effective methods of learning. But they're also time-consuming. With extended class periods, however, we can use these best practices more often. (Wormeli, 1998, p. 1)

Gallagher (1999) makes the point that, although time is an important commodity in school, the bigger problem is with distribution of time. He explains that when so many subjects are compressed into shorter time slots, schools tend to adopt an assembly line mentality rather than being a center of reflective learning. So much time of each class period must be devoted to housekeeping chores like checking attendance, collecting and distributing papers, etc. that teachers have very little actual instructional time with students.

> The net result of the author's review of the literature is that schools must find schedules that work for them. A school schedule must meet the needs of the students as well as those of the faculty and staff. Wunderlich, Robertson, & Valentine (2000) explain that for middle level schedules to be effective they must be based on the philosophy that schools are flexible and responsive to the needs of the students. "A flexible and responsive schedule supports blocks of instructional time, appropriate planning time for staff members, advisory time, flexibility for special schedules, and both elective and core programs" (p. 2).

Throughout the literature, there existed a consistent theme when considering the factors needed for developing a school's schedule. Hackmann & Valentine (1998) most clearly state the six scheduling factors for middle school as:

1. The schedule should support interdisciplinary team organization.
2. The schedule should support an appropriate curriculum.
3. The schedule should support quality instruction in the disciplines through the expanded and flexible uses of time.
4. The schedule should promote student development and supportive relationships.
5. The schedule should promote quality teacher collaboration
6. The schedule should promote teacher empowerment. (p. 1-5)

Much of the research shows a positive reaction to the change to block scheduling. Eineder and Bishop (as cited in Spellman, 2001) discuss the fact that their research showed that after they changed from a traditional schedule, the emotional climate of the classroom seemed to improve,

for students and teachers. The expanded class time resulted in larger number of students having more positive attitudes about their relationships with teachers.

> The research completed by Milwaukee Public Schools showed that the vast majority of schools operating under a block schedule format benefited from decreased movement of students between classes throughout the day, fewer administrative tasks faced by teachers, better student-teacher ratios, more planning time, promotion of hands-on and cooperative learning, increased use of a variety of teaching strategies, supported interdisciplinary experiences, less lesson fragmentation, and better met the needs of the different learning styles. "Also in line with national research, our data collection efforts revealed that standardized test scores improved, attendance improved, incident referrals decreased and the number of students involved in educational community experiences increased dramatically" (Milwaukee Public Schools, 1999, p.3).

On a website, Middle Web, for teachers to discuss block scheduling all of the participants were using block scheduling and praised its use at the middle-grades level. One teacher, Jean Spanko, had the following to say:

> My 7th grade team piloted a flexible block schedule this year. We see the kids 3 times/week for about 80 minutes. We went into it with some trepidation, but it's turned out to be a grand success. The teachers love it, the parent survey showed great support for the idea, and our student survey showed about 90% of the students favored the longer class periods. (Spanko, n.d., p. 1)

In conclusion, block scheduling in one form or another seems to be highly effective when properly used. There are negatives regarding block scheduling, for example if the teachers don't support it and don't change their teaching methods from primarily lecture and worksheets to a variety of teaching strategies, block scheduling can be ineffective. However, block scheduling invites depth in learning, inquiry based and student based learning, which corresponds with Georgia Performance Standards (GPS). The faculty and staff of Veterans Memorial Middle School are planning to meet the needs of the students by changing their teaching methods to support the GPS and alternating 4 X 4 block schedule. The author would recommend any middle school use a block schedule of some type in order to meet the needs of their school. Once the teachers buy into the concept, there is no limit to how successful a school will be.

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